

Making the Grade in School Pest Management—Putting IPM to Work

By Madeline Brattesani, Nita Davidson, and Dennis Tootelian

In California, schools must obey the same environmental protection laws that apply to other public or private institutions. Recently, parents, community organizations, and advocacy groups have expressed a need to know that schools are using pesticides safely and judiciously because of concerns about the special vulnerability of young children to environmental toxins. As a result, many of California's public schools are now reevaluating their pest management policies and programs.

The Healthy Schools Act

These concerns about children and pesticide use in California schools resulted in the Healthy Schools Act of 2000 (Assembly Bill 2260, authored by Assembly Member Kevin Shelley). This law establishes the right of the public to know about pesticide use in schools, encourages schools to use integrated pest management (IPM) practices, requires the Department of Pesticide Regulation (DPR) to provide various forms of assistance to school districts, and requires more detailed pesticide use reporting.

The requirements of the act include, among other things:

- Schools must provide all staff and parents **written notification** each year addressing expected pesticide use (some products are exempt) and reference DPR's Internet site for more information about pesticides.
- Each school must provide the opportunity for interested staff and parents to **register** with the district if they want to be notified of individual pesticide applications at the school before they occur.
- School districts must post **warning**

signs at each area of the school where pesticides will be applied (some products are exempt). These signs are posted 24 hours in advance of a pesticide application and must remain up for 72 hours afterward.



- Each school must **maintain records** of all pesticides used at the school for four years and make those records available to the public upon request.
- The preferred methods of managing pests at schools are effective, least-hazardous pest management practices, consistent with **IPM**, a strategy that focuses on long-term prevention or suppression of pest problems by emphasizing good sanitation and maintenance practices.
- Each school district must designate an **IPM coordinator** to carry out the requirements of the Healthy Schools Act.
- DPR must have a **Website** that provides information on pesticides

and IPM, and develop a guidebook for a model IPM program.

- DPR must also establish a **training** program for IPM coordinators to facilitate the voluntary adoption of a model IPM program and least-hazardous pest management practices by school districts.

Some Easy-to-Use IPM Solutions for Common Pest Problems in School Buildings

An IPM program in your school can minimize risks to people and the environment, while also keeping school buildings pest-free. Below are some steps you can take that follow an IPM approach.

- (1) Determine whether you actually have a pest problem. This is directly related to the next steps, identification and monitoring. For example, occasionally when the weather is hot and dry, schools are invaded by field cockroaches, small brown roaches that actually prefer to live outdoors in leaf litter. By correctly identifying these critters, you'll realize they are only intermittent visitors. By monitoring them with sticky traps, you'll see that their population is not increasing. Emphasizing good sanitation and sealing up cracks are probably sufficient management actions.
- (2) Identify and monitor pests. Consult University of California Cooperative Extension for reliable pest identification. You'll find contact information in the county pages of your phone book. Or visit the University of California Statewide Integrated Pest Management Program Website at www.ipm.davis.edu/PMG/selectnewpest.home.html

(3) If pest population levels exceed a pre-established action level – for example, how many ants in a classroom are too many? – then modify the pest habitat to discourage or exclude the pests, or use treatment strategies that emphasize physical or mechanical practices. See www.ipm.ucdavis.edu/PMG/selectnewpest.home.html or www.schoolipm.info for information about action levels. Chemicals, such as pesticides, are used to solve the problem if other methods such as those outlined below fail. Use reduced-risk pesticides such as baits when possible and avoid using liquid or broadcast sprays.

(4) Evaluate results through recordkeeping and follow-up. For example, by keeping careful records on ant infestations, you can figure out strategies such as where to seal entry holes or place baits. If you no longer find ants in that location the following year, you can be reasonably sure that your strategies are successful.

(5) Use results to adjust and improve the practices used at the site.

Pests invade buildings when there is opportunity. This opportunity may be seasonal and reflect the condition and use of the buildings. All pests need food, water, and shelter to survive and reproduce. You can plan a course of action based on pest identification and monitoring, and specific biological habitat information about the pest that is causing the problem.

Prevention: You can use various methods to prevent indoor infestation. Start with **sanitation**. It's the first major step and includes vacuuming, washing surfaces with soap and water, and trash removal. **Barricades** are also an effective preventive strategy and include screened windows, door sweeps, caulking, copper mesh, plaster, wire or plastic anti-roosting or anti-nesting devices, and copper wool inserted into rodent

passageways. Eliminate other pest avenues into buildings, such as tree limbs touching roofs. For even more suggestions on how to prevent pests in buildings, visit DPR's School IPM Website at <http://www.schoolipm.info> to view or download "Pest Prevention: Maintenance Practices and Facility Design."

Physical or Mechanical Control: After you've considered preventive strategies, other pest management practices are sticky traps, rat and mousetraps, and light traps. Traps may have food or chemical mating lures (pheromones) as an attractant.

Chemical Control: Finally, if non-chemical methods alone prove insufficient to solve the problem, then including an insecticide or rodenticide into your management program may be indicated. Some of the least-hazardous chemical controls include self-contained baits for ant control, boric acid dust blown into crevices to control cockroaches, and self-contained baits (rodenticides) for mice, and rats. In addition to reducing the exposure of humans and the environment to pesticides, these pesticides, used in the form of self-contained baits or traps, are exempt from the posting and notification requirements of the Healthy Schools Act.

Let the California Department of Pesticide Regulation Help You Put IPM to Work

We recognize the efforts school districts are making to follow the requirements of the Healthy Schools Act. To make it easier for school districts, DPR offers a variety of resources and provides school districts assistance in developing their IPM programs.

The California School IPM Program, administered by DPR, introduced its Website at the end of 2001. Located at www.schoolipm.info, it is a comprehensive resource for school employees, pest

control businesses, parents, and the public.

Features include sample documents, a summary of mandatory and voluntary components of the Healthy Schools Act, a health and environmental impacts section, a section on managing pests with links to fact sheets on specific pest species, links to the DPR pesticide databases, a frequently-asked-questions section, and references to legislative text applicable to IPM in schools.

Another valuable resource, also on the Web site, is DPR's 424-page California School IPM Model Program Guidebook. It serves as a how-to resource for school districts as they develop their pest management programs.

DPR has established a California School IPM list server to quickly send you useful information about school IPM. This information may include training sessions, meetings, workshops, conferences, new IPM resources, and news related to school IPM. To subscribe, go to www.schoolipm.info and click on "School IPM Electronic Notification List." Make sure you select the correct list – School Integrated Pest Management.

Every year, DPR conducts regional school IPM training workshops so that districts understand the principles of IPM and can train their staff. See the DPR School IPM Website for more information about upcoming training sessions in the Modesto, Sunnyvale, Ventura, and Visalia areas.

In Summary


Prevention is the best approach for managing pests and includes strategies such as good sanitation and continuing maintenance. As shown by results from our recent survey of California school districts, many districts find their IPM programs either reduce or have no impact on long-term costs. Therefore, an IPM program can help schools

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city. The architectural style was designed to be a transitional element from these two sections, with 4:12 pitched metal roofs, concrete slab on grade construction, and lap siding and cement plaster wall finish.


The site parking was designed to accommodate the staff and parents/visitors in a designated area and to separate the campus from the two surface streets. There is a drop-off area within the site and a bus drop-off area along French Camp Road. The placement of the buildings on the site lent itself to a more secure campus where the buildings naturally form an enclosure. There is a perimeter fence for security reasons as well as security lights within the campus. The site has two play structure locations and a sunken amphitheater that all serve as outdoor places of activities. Aside from the amphitheater there is also a quadrangle that serves as an outdoor eating and break area. Building "A" houses the multipurpose facility with a full cooking kitchen and a staff lounge wherein

staff can relax and regroup their thoughts. Building "B" consists of the administration offices, library and a computer lab accommodating twenty-one students. Buildings "C", "D" and "E" collectively include two kindergarten classrooms and seventeen general classrooms.

The newly built Dolores Huerta Elementary School exemplifies the creative solutions developed by a team (District, Contractor, Architect) that was faced with difficulties, safety, location, schedule and cost issues. The solution of utilizing the pre-fabricated component method of construction allowed the school to be designed and occupied within nine months, while still meeting the tight budget. 

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prevent and manage pests in a cost-effective manner that poses the least risks to students, school staff, and the environment. 

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